

What is claimed is:

1. A rotatable drilling device for use in injecting medication by drilling through bone or hard tissue, said rotatable drilling device  
5 comprising:

a rotatable hollow drill bit adapted for mounting in a spindle of a drill, wherein the rotatable hollow drill bit includes a hub and a needle extending outwardly from an end of the hub, wherein the needle has a sharpened tip, wherein the rotatable hollow drill bit has a bore extending  
10 through the hub and needle, and wherein an end opposite the sharpened tip has an opening through which medication can be introduced into the bore; and

wherein the needle includes a lateral opening to the bore that is located at a distance from the sharpened tip that is not less than the  
15 thickness of the bone or hard tissue to be drilled by the device.

2. A rotatable drilling device as recited in claim 1 wherein the lateral opening is an axially-extending slot that is open to the bore, and wherein the distance from a distal end of the sharpened tip to a proximal  
20 end of the slot is not less than said thickness of bone or hard tissue.

3. A rotatable drilling device as recited in claim 1 wherein the lateral opening is a hole through a side wall of the needle to the bore, and wherein the distance from a distal end of the sharpened tip to a center of  
25 the hole is not less than said thickness of bone or hard tissue.

4. A rotatable drilling device as recited in claim 1 wherein the needle is a hypodermic needle having a sharpened point and the lateral opening.  
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5. A rotatable drilling device for use in injecting medication,  
said rotatable drilling device comprising:

a rotatable hollow drill bit having an axis of rotation and being  
adapted for mounting in a spindle of a drill;

5 the rotatable hollow drill bit including a hub having a bore extending  
therethrough along the axis of the hollow drill bit, wherein the hub has an  
opening in one end thereof through which medication can be introduced  
into the bore, and wherein the hub further includes an adapter means for  
coupling the hub to the spindle for rotation therewith;

10 the rotatable hollow drill bit including a hypodermic needle  
extending outwardly from an end of the hub opposite said opening and  
along the axis of the rotatable hollow drill bit, wherein the hypodermic  
needle has a sharpened tip, and wherein the needle includes a lateral  
opening to the bore that is located at a distance from a distal end of the  
15 sharpened tip that is not less than the thickness of the bone or hard tissue  
to be drilled by the device.

6. A rotatable drilling device as recited in claim 5 wherein the  
lateral opening is an axially-extending slot that is open to the bore, and  
20 wherein the distance from a distal end of the sharpened tip to a proximal  
end of the slot is not less than said thickness of bone or hard tissue.

7. A rotatable drilling device as recited in claim 5 wherein the  
lateral opening is a hole through a side wall of the needle to the bore, and  
25 wherein the distance from a distal end of the sharpened tip to a center of  
the hole is not less than said thickness of bone or hard tissue.

8. A medication injection device comprising:  
a rotatable hollow drill bit adapted for mounting in a spindle of a  
30 drill, wherein the rotatable hollow drill bit includes a hub and a first needle

extending outwardly from one end of the hub, wherein a distal end of the first needle has a sharpened tip, wherein the rotatable hollow drill bit has a bore extending through the first needle, wherein the hub further includes an adapter means for coupling the hub to the spindle for rotation

5 therewith, and wherein the needle includes a lateral opening to the bore that is located at a distance from the sharpened tip that is not less than a thickness of tissue to be drilled by the device; and

a syringe having a second needle adapted for insertion into the bore of the rotatable hollow drill bit.

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9. A medication injection device as recited in claim 8 wherein the hub is substantially cylindrical in shape and has a central axis, and wherein the bore is located along the central axis.

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10. A medication injection device as recited in claim 8 wherein the first needle is a hypodermic needle having a sharpened point.

11. A method of administering medication to a tissue, said method comprising the steps of:

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drilling an opening in the tissue with a drilling device, wherein the drilling device includes a hollow drill bit having a sharpened tip at one end thereof and a bore extending therethrough, wherein the hollow drill bit further includes a lateral opening to the bore that is located at a distance from the sharpened tip that is not less than the thickness of the tissue to be drilled by the device;

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inserting a needle of a syringe into the bore at an end opposite the sharpened tip, wherein the syringe has medication to be administered to the tissue; and

injecting medication from the syringe and through the bore of the hollow drill bit, wherein the medication flows out of the lateral opening of the hollow drill bit and into the tissue.

5           12.    A method as recited in claim 11 wherein said tissue is bone, cartilage or tendon.

          13.    A method as recited in claim 11 wherein the medication is a local anesthetic.

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